

REMARKS/ARGUMENTS

Claims 1-15 are pending in this application.

Claims 7-10 and 12-14 are withdrawn.

Claims 1-3, 5, 11 and 15 have been amended in various particulars as indicated hereinabove. New Claim 16 has been added.

Claim 5 had been rejected under 35 U.S.C. § 112, second paragraph. It is believed that Claim 5 as amended is in compliance with the requirements of 35 U.S.C. § 112.

Claims 1-3, 5-6 and 11 had been rejected under 35 U.S.C. § 103(a) over Rice (U.S. Patent No. 5,396,839). This rejection is respectfully traversed for the following reasons.

If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent.¹ The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of non-obviousness.²

The Patent Office wrote that Rice teaches a multilayer structure for forming an image as in Figs. 1, 7 and 14 and columns 8-9, comprised of an embossed layer and a printing stock, referring to 55 in Figs. 8-11 et al. The Patent Office goes on to write what the printing stock is comprised of and how that printing stock is embossed etc. etc.

Applicants point out that the teachings referred to by the Patent Office are not relevant to the invention as claimed in independent Claims 1 and 11. The invention claimed in those claims is directed to a multilayer printing material that is used to form an image on a different substrate. The claimed invention is not the resulting image, it is different material that is used in order to form that resulting image on the printing stock.

¹ *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)

² *Manual of Patent Examining Procedure* § 2142 (8th ed. rev. 7 July 2008)

This whole description of Rice, including the portions of Rice cited by the Patent Office, describes the structure of an image already formed on the surface of the printing stock. Rice describes what was printed, not the multilayer material that is used to form “what was printed” on the printing stock. The image in Fig. 7 and in referenced Figs. 8-13 has already been formed on the printing stock 23, it has nothing to do with the multilayer printing material that needs to be used in order to form that image on a printing stock in Rice. By analogy, the Patent Office essentially says that a ribbon inserted in a printer and used for printing is the same as the resulting image on a sheet of paper printed in that printer. The resulting image on a sheet of papers cannot be used to form images, whereas the printer ribbon can be used to create prints. By analogy, Claims 1 and 11 are directed to a multilayer material (...and embossed layer of the multilayer material...) for forming an image on a different substrate. The substrate on which the image is formed (the printing stock in Rice) has nothing to do with the multilayer printing material of the present invention for forming in image, such substrate is functionally different in that it cannot serve as a printing material to form images on another substrate.

The printing/image forming material in Rice is simply a printing plate 31. (“Printing plate 31 contains a pattern of distinctly configured color separated halftones 39...” Col. 5, lines 30-31). As shown in Fig. 1 (and described throughout the Rice description) that printing plate 31 simply prints “a single color image 25 [on surface 23 of printing stock 22] which has a pattern 49 of color separated halftones 39 of image 21 ‘is performed] by printing press 24 through the process of offset lithography.” (Col. 7, lines 13-16). There is no embossed layer on printing plate 31. What does this offset lithography printing plate have to do with the multilayer printing material of Claims 1 and 11 comprising a layer embossed in a very specific way?

Moreover, the Patent Office wrote that the structure further comprises a plurality of pixels or panels (51, Figure 7 or 152, Figure 19, Column 14, lines 49-52). This is incorrect. There are no consecutive substantially non-overlapping panels disclosed in Rice, contrary to what is claimed in Claims 1 and 11. Reference numeral 51 is not a panel. In Col. 6, lines 27- 40 explain that “[P]attern 49 is made up of a plurality of pixels

or cells 51, each of which are generally in the shape of an isosceles trapezoid [please refer to Figs. 5 and 7]. Each pixel 51 is formed from three adjoining elements 52...Pixels 51 include adjoining dots representing the colors blue red and green, ...The three color representing dots 50 of each cell 51 are arranged in a similar spatial design 53.”

It is clear from that description of Rice that a pixels or cells 51 comprised of multicolored RGB dots cannot possibly be even remotely similar to the non-overlapping consecutive panels of Claims 1 and 11. To the contrary, the composite image 48 (the structure of which is shown in Fig 5, Col. 6, lines 41-42) is comprised of color separated half tone images 39 that were photographically superimposed in proper registration. (Col. 6, lines 16-19). How can this superimposed RGB image of Rice be of any relevance to the substantially non-overlapping consecutive panels of the embossed layer in a multilayer material, wherein each panel is tinted in only one color? (Pixels 152 in Fig. 14 are “substantially identical to pixels 51”, Col. 14, lines 49-50).

The Patent Office further wrote that “the plurality of panels is tinted with ink (54), wherein the ink may include one of the primary colors (please see column 7, lines 45-50).” In fact, the Patent office has completely misread the description of Rice.

What Rice describes in the relevant excerpts is the following. A single color half tone image 39 is created from a negative, which was obtained by photographing an actual image (21) through a color separation half tone screen. (Col. 5, lines 45-48) These separate color half tone images 39 are created in standard primary colors. (Col. 5, lines 30-35). Thus, the printing plate 31 contains a pattern of distinctly configured color separated half tone images 39 of image 21. (Col. 5, lines 30-31). Contrary to the assertion of the Patent Office, Rice does not teach that the ink 54 is applied to the printing plate to create half tone images. As explained above, half tone images are created from negatives by means of photography through a color separation halftone screen.

Furthermore, as described in Rice, “Ink 54 can be of any single color and is shown in the drawings as a single color. However, ink can also be clear or transparent...” (Col. 7, lines 23-25). “Ink 54 from ink roller 28 sticks only to composite image 48 on

plate 31..." (Col. 7, lines 32-33). There is only one color of ink 54 in Rice in only one ink roller 28, that one color ink gets deposited over the whole image 48 during the lithographic printing process. It is impossible to have different colors of ink in one ink roller of Rice and deposit different colors of ink onto different non-existing panels on printing plate 31 of Rice so that each panel is tinted in only one primary color. In Rice ink of one color is spread over the whole image area. This has nothing to do with the invention as claimed in Claims 1 and 11, aside from the fact that the ink of one color in Rice is spread over the resulting image, it is not a part of the multilayer printing material that is configured as claimed in Claimed 1 and 11.

Therefore, as follows at least from the above-presented arguments and assertions, none of the elements of independent Claims 1 and 11 are disclosed in Rice, which is a different technology with different materials and different functionality. The Rice reference should be withdrawn and Claims 1 and 11 should be allowed over Rice. At the interest of conserving time and effort required to respond to further arguments of the Patent Office in view of the citation of the Rice patent that has nothing to do with the present invention, Applicants do not respond to those further arguments, while disagreeing with them and reserving the right to respond to those arguments.

Dependent Claims 2-3 and 5-6 depend off Claims and should be allowed.

Claim 4 had been rejected under 35 U.S.C. § 103(a) over Rice (U.S. Patent No. 5,396,839) and further in view of Mallik et al. (U.S. Patent No. 5,085,514). This rejection is respectfully traversed for the same reasons as articulated above. Claim 4 should be allowed over Rice.

Claim 15 had been rejected under 35 U.S.C. § 103(a) over Rice (U.S. Patent No. 5,396,839). This rejection of amended Claim 15 is respectfully traversed for the same reason as articulated above. Allowance of Claims 15 is respectfully solicited.

Claims 1-6, 11 and 15 had been rejected under 35 U.S.C. § 103(a) over Waitts (U.S. Patent No. 5,834,096) in view of Rice. These rejections are respectfully traversed for the following reasons.

The card with indicia described in Waitts is not a printing material for forming an image, it is already the formed image in a substrate, contrary to what is claimed in Claims 1 and 11. There is no disclosure in Waitts of an embossed layer comprising consecutive substantially non-overlapping panels, wherein each panel diffracts light at a distinct predetermined reflection angle, wherein a value of each distinct predetermined angle is different for each panel.

With regard to Rice, Applicant repeats and incorporates all the arguments and assertions made above. The teachings of Rice in combination with Waitts do not disclose each and every element of the invention as claimed in Claims 1 and 11. For these reasons Claims 1 and 11 and any dependent Claims as amended should be allowed over the combination of Waitts and Rice.

With regard to amended independent Claim 15, the combination of Waitts and Rice contains no disclosure of the element “wherein all pixels tinted in the same primary color diffract light at a distinct predetermined diffraction angle, wherein values of different distinct diffraction angles are different from one another”. Claims 15 should be allowed.

It is believed that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited in this case. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

HOUSTON ELISEEVA LLP

By /Maria M. Eliseeva/
Maria M. Eliseeva

Application No.: 10/772,752
Amendment dated: September 8, 2010
Reply to Office Action of March 8, 2010
Attorney Docket No.: 22176.28 (ITW-14460)

Registration No.: 43,328
Tel.: 781 863 9991
Fax: 781 863 9931

4 Militia Drive, Suite 4
Lexington, Massachusetts 02421-4705
Date: September 8, 2010